

# Technical Report - 2003

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**Rhode Island Health Quality Performance Measurement and Reporting Program**  
**A Technical Report of Patient Satisfaction with Hospital Care in Rhode Island**

## Project Overview

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In 1998, the Rhode Island General Assembly passed a law that established the Rhode Island Health Quality Performance Measurement and Reporting Program. The goal of this legislation is to promote quality in the state's health care system by developing a performance measurement and public reporting program. This legislation mandates the public reporting of information on the quality of care in all licensed Rhode Island health care facilities, beginning with hospitals. This Technical Report documents the methods used in hospitals to meet the legislative requirements in regards to comparable, statistically valid patient satisfaction measures conducted by facilities and reported to the Rhode Island Department of Health. The information comes from patients in eleven general hospitals and two specialty hospitals – one that provides only rehabilitation services and one that provides only psychiatric services.

All licensed health care facilities were mandated by legislation to publicly report patient satisfaction information. This report includes patient satisfaction information for hospitals. At the current time, there are some hospital-based healthcare facilities that are not included in the report because the available survey instruments are not relevant to their unique patient populations (a pediatric psychiatric hospital and a long-term/acute hospital) or they are exempt from state mandate (a Veterans Affairs hospital). The eleven licensed general hospitals and two licensed specialty hospitals participating in the project are:

Butler Hospital  
*Services: Psychiatric*  
345 Blackstone Boulevard  
Providence, RI 02906  
401- 455-6200  
[www.butler.org](http://www.butler.org)

Rehabilitation Hospital of RI  
*Services: Rehabilitation*  
116 Eddie Dowling Highway  
North Smithfield, RI 02896  
401-766-0800  
[www.rhri.net](http://www.rhri.net)

Kent County Memorial Hospital  
*Services: Medical, Surgical, Obstetrical*  
455 Toll Gate Road  
Warwick, RI 02886  
401-737-7000  
[www.kenthospital.org](http://www.kenthospital.org)

Rhode Island Hospital  
*Services: Medical, Surgical*  
593 Eddy Street  
Providence, RI 02903  
401-444-4000  
[www.rhodeislandhospital.org](http://www.rhodeislandhospital.org)

Landmark Medical Center  
*Services: Medical, Surgical, Obstetrical*  
115 Cass Avenue  
Woonsocket, RI 02895  
401-769-4100  
[www.landmarkmedical.org](http://www.landmarkmedical.org)

Roger Williams Medical Center  
*Services: Medical, Surgical*  
825 Chalkstone Avenue  
Providence, RI 02908  
401-456-2000  
[www.rwmc.com](http://www.rwmc.com)

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Memorial Hospital of RI  
*Services: Medical, Surgical, Obstetrical*  
111 Brewster Street  
Pawtucket, RI 02860  
401-729-2000  
[www.mhri.org](http://www.mhri.org)

South County Hospital  
*Services: Medical, Surgical, Obstetrical*  
100 Kenyon Avenue  
Wakefield, RI 02879  
401-782-8000  
[www.schospital.com](http://www.schospital.com)

The Miriam Hospital  
*Services: Medical, Surgical*  
164 Summit Avenue  
Providence, RI 02906  
401-793-2500  
[www.miriamhospital.org](http://www.miriamhospital.org)

Westerly Hospital  
*Services: Medical, Surgical, Obstetrical*  
25 Wells Street  
Westerly, RI 02891  
401-596-6000  
[www.westerlyhospital.com](http://www.westerlyhospital.com)

Newport Hospital  
*Services: Medical, Surgical, Obstetrical*  
11 Friendship Street  
Newport, RI 02840  
401-846-6400  
[www.newporthospital.org](http://www.newporthospital.org)

Women & Infants Hospital of RI  
*Services: Medical, Surgical, Obstetrical*  
101 Dudley Street  
Providence, RI 02905  
401-274-1100  
[www.womenandinfants.com](http://www.womenandinfants.com)

Our Lady of Fatima Hospital  
*Services: Medical, Surgical*  
200 High Service Avenue  
North Providence, RI 02904  
401-456-3000  
[www.fatimahospital.com](http://www.fatimahospital.com)

## **Program Operations**

The Rhode Island Department of Health (HEALTH) is responsible for the implementation and oversight of the program. HEALTH is working closely with the Hospital Association of Rhode Island (HARI) who has a coordinating role in the program.

## **Satisfaction Measurement Vendor**

In order to select a satisfaction measurement vendor for this project, an extensive selection process was conducted and Parkside Associates, Inc. was chosen and provided analyses reported in the 2001 *Report of Patient Satisfaction with Hospital Care in Rhode Island*. In December 2000, another research firm, Press Ganey Associates, Inc., acquired Parkside Associates, Inc.

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Press Ganey Associates, Inc. is a satisfaction measurement and research organization based in South Bend, Indiana. Established in 1985, the firm develops satisfaction surveys implemented in hospitals and other health care settings. Press Ganey Associates is the largest firm in the industry, processing more than eight million surveys annually for over 6,000 clients. Press Ganey managed the data collection process and maintained internal quality control: coordinating the mailings, processing the returned surveys, and generating the reports. The research and development team drafted the Technical Report and performed the data analysis included in the report.

**Because the Parkside survey was used for the 2001 *Report of Patient Satisfaction with Hospital Care in Rhode Island*, and the Press Ganey survey was used for the 2003 *Report of Patient Satisfaction with Hospital Care in Rhode Island*, performance from these two reports are not directly comparable.**

### **Technical Report Explanation**

Patient satisfaction data collected under this program is communicated in two documents: the Public Report and the Technical Report. The Public Report provides rating levels for various dimensions of care based on hospital scores provided by patients in Rhode Island hospitals. The intention is to display the patient satisfaction ratings in a consumer-friendly format. This Technical Report expands on the Public Report and provides detailed information on the project including: survey development, data collection methodology, data quality assessment, explanation of indicators, calculation of hospital scores, normative comparison explanation, and score conversions, as well as, specific numerical scores for the hospitals.

### **Survey Development**

One of the hallmarks of Press Ganey's surveys is their scientific basis. They incorporate the best characteristics of survey design. They are developed by conducting patient focus groups, reviewing surveys from health care facilities across the country, soliciting feedback from physicians and administrators, reviewing current professional and scientific publications on health care delivery, and utilizing the latest research on survey statistics and design. Each survey undergoes periodic revision, including psychometric testing. Information regarding the most recent psychometric testing of each of the surveys used for the 2003 *Report of Patient Satisfaction with Hospital Care in*

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*Rhode Island* is provided below. The most recent psychometric testing for the Inpatient survey was conducted on patient data collected during 2001. The most recent psychometric testing for both the Inpatient Rehabilitation and Inpatient Psychiatric surveys was conducted on patient data collected in 2002.

### **Inpatient Survey Psychometric Information**

A sequence of statistical analyses were conducted to establish the psychometric reliability and validity of the questionnaire. The first step was to determine construct validity which was evaluated through factor analysis. A factor analysis of the first 45 items on the survey identified nine factors.<sup>1</sup> These factors paralleled the structure of the subscales on the questionnaire. The subscales on the survey were: Admission, Room, Meals, Nurses, Tests and Treatments, Visitors and Family, Physician, Discharge, Personal Issues, and Overall Assessment.

Reliability, or internal consistency of the subscales, was estimated using the Cronbach's Alpha statistic. All subscales exceeded the stringent .70 standard for reliable measures. Reliability estimates ranged from .84 to .95. The Cronbach's Alpha for the entire questionnaire is .98 confirming the instrument's high internal consistency and reliability.

Finally, evidence of predictive validity was established, using multiple regression analyses which showed that the instrument explains approximately 77% of the variance in patients' likelihood to recommend the hospital they visited. Survey development convention suggests that survey items should collectively account for at least 50% of the variance in global ratings.

### **Inpatient Rehabilitation Survey Psychometric Information**

A sequence of statistical analyses were conducted to establish the psychometric reliability and validity of the questionnaire. The first step was to determine construct validity which was evaluated through factor analysis. A

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<sup>1</sup> Four additional items which comprise the "Overall Assessment" section of the questionnaire were omitted from the factor analysis. These items are intended to be summary ratings, and therefore, would have high predicted intercorrelations with other items.

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factor analysis of the first 61 items on the survey identified twelve factors.<sup>2</sup> These factors paralleled the structure of the subscales on the questionnaire. The subscales on the survey were: Admission, Room, Diet and Meals, Nursing Care, Physical Therapy, Occupational Therapy, Recreation Therapy, Speech Therapy, Other Services, Visitors and Family, Your Rehabilitation Doctor, Social Work Services and Discharge and Final Ratings.

Reliability, or internal consistency of the subscales, was estimated using the Cronbach's Alpha statistic. All subscales exceeded the stringent .70 standard for reliable measures. Reliability estimates ranged from .84 to .97. The Cronbach's Alpha for the entire questionnaire is .99 confirming the instrument's high internal consistency and reliability.

Finally, evidence of predictive validity was established, using multiple regression analyses which showed that the instrument explains approximately 58% of the variance in patients' likelihood to recommend the hospital they visited. Survey development convention suggests that survey items should collectively account for at least 50% of the variance in global ratings.

### **Inpatient Psychiatric Survey Psychometric Information**

A sequence of statistical analyses were conducted to establish the psychometric reliability and validity of the questionnaire. The first step was to determine construct validity which was evaluated through factor analysis. A factor analysis of the first 45 items on the survey identified nine factors.<sup>3</sup> These factors paralleled the structure of the subscales on the questionnaire. The subscales on the survey were: Admissions, Your Room/Accommodations, Diet and Meals, Treatment Staff, Medical Procedures, Therapeutic Programs, Your Primary Psychiatrist, Visitors and Family, Discharge and Final Ratings.

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<sup>2</sup> Eleven additional items which comprise the "Final Ratings" section of the questionnaire were omitted from the factor analysis. These items are intended to be summary ratings, and therefore, would have high predicted intercorrelations with other items.

<sup>3</sup> Six additional items which comprise the "Final Ratings" section of the questionnaire were omitted from the factor analysis. These items are intended to be summary ratings, and therefore, would have high predicted intercorrelations with other items.

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Reliability or internal consistency of the subscales was estimated using the Cronbach's Alpha statistic. All subscales exceeded the stringent .70 standard for reliable measures. Reliability estimates ranged from .76 to .94. The Cronbach's Alpha for the entire questionnaire is .99 confirming the instrument's high internal consistency and reliability.

Finally, evidence of predictive validity was established, using multiple regression analyses which showed that the instrument explains approximately 60% of the variance in patients' likelihood to recommend the hospital they visited. Survey development convention suggests that survey items should collectively account for at least 50% of the variance in global ratings.

### **Survey Descriptions**

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The Inpatient Survey was used for all general hospitals and was mailed to patients discharged from surgical, medical and obstetrical services. The Inpatient Rehabilitation Survey was used for the freestanding rehabilitation specialty hospital and was mailed to patients. The Inpatient Psychiatric Survey was handed out to patients who were discharged from the freestanding psychiatric specialty hospital.

Listed below are the actual survey items that appeared on each of the three surveys. For readability of the public report, inconsistencies among similar survey section headings from different survey instruments were made uniform. For instance, in the Inpatient Survey the section with items relating to food service is labeled Meals whereas, in the other two surveys it is titled Diet and Meals. It was decided that because these sections all index the same concepts, they should all be referred to as Diet and Meals.

### **Inpatient Survey**

The Inpatient Survey consists of 66 questions. Of these, 49 questions are grouped into ten subscales: Admission, Room, Meals, Nurses, Tests and Treatment, Visitors and Family, Physician, Discharge, Personal Issues and Overall Assessment. The other 17 items are background questions.

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Background

1. Patient's first stay here (y/n)
  2. Admitted through the Emergency Department (y/n)
  3. Was your admission unexpected? (y/n)
  4. Did you have a roommate? (y/n)
  5. Were you placed on a special or restricted diet during most of your stay? (y/n)
  6. Did someone explain your extended life support (e.g., living will, advance directives, etc.) options? (y/n)
  7. Did someone give you information about organ donation? (y/n)
  8. Did someone give you information about the Patient's Bill of Rights? (y/n)
  9. Do you have insurance that limits your choice of physician or provider (e.g., HMO or PPO)? (y/n)
  10. Room number
  11. Number of days in hospital
  12. Are you Hispanic or Latino?
    - a. Yes, Hispanic/Latino
    - b. No, not Hispanic/Latino
  13. What is your race?
    - a. American Indian or Alaska Native
    - b. Asian
    - c. Black or African American
    - d. Native Hawaiian or Other Pacific Islander
    - e. White
  14. What is the highest grade or level of education that you have completed?
    - a. 8<sup>th</sup> Grade or Less
    - b. Some High School
    - c. High School Graduate or GED
    - d. Some college or 2-year degree
    - e. 4-year college graduate
    - f. More than 4-year college degree
  15. Compared to others your age, how would you typically describe your health?
    - a. very poor
    - b. poor
    - c. fair
    - d. good
    - e. very good
  16. Did someone help you complete the survey? (y/n)
  17. If so, how did that person help you?
    - a. Read the questions to me
    - b. Wrote down the answers I gave
    - c. Answered the questions for me
    - d. Translated the questions into my language. If so, what language?
- A. Admission
1. Speed of admission process
  2. Courtesy of the person who admitted you
  3. Rating of pre-admission process (if any)
- B. Room
1. Pleasantness of room décor
  2. Room cleanliness
  3. Courtesy of the person who cleaned your room
  4. Room temperature
  5. Noise level in and around room
  6. How well things worked (TV, call button, lights, bed, etc.)



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- C. Meals
  - 1. If you were placed on a special/restricted diet, how well it was explained
  - 2. Temperature of the food (cold foods cold, hot foods hot)
  - 3. Quality of the food
  - 4. Courtesy of the person who served your food
- D. Nurses
  - 1. Friendliness/courtesy of the nurses
  - 2. Promptness in responding to the call button
  - 3. Nurses' attitude toward your requests
  - 4. Amount of attention paid to your special or personal needs
  - 5. How well the nurses kept you informed
  - 6. Skill of the nurses
- E. Tests and Treatments
  - 1. Waiting time for tests or treatments
  - 2. Concern shown for your comfort during tests or treatments
  - 3. Explanations about what would happen during tests or treatments
  - 4. Skill of the person who took your blood (e.g., did it quickly, with minimal pain)
  - 5. Courtesy of the person who took your blood
  - 6. Skill of the person who started the IV (e.g., did it quickly, with minimal pain)
  - 7. Courtesy of the person who started the IV
- F. Visitors and Family
  - 1. Helpfulness of the people at the information desk
  - 2. Accommodations and comfort for visitors
  - 3. Staff attitude toward visitors
  - 4. Information given to your family about your condition and treatment
- G. Physician
  - 1. Time physician spent with you
  - 2. Physician's concern for your questions and worries
  - 3. How well physician kept you informed
  - 4. Friendliness/courtesy of the physician
  - 5. Skill of the physician
- H. Discharge
  - 1. Extent to which you felt ready to be discharged
  - 2. Speed of discharge process after you were told you could go home
  - 3. Instructions on how to care for yourself at home
  - 4. Help arranging home care services (if needed)
- I. Personal Issues
  - 1. Staff concern for your privacy
  - 2. Staff sensitivity to the inconvenience that health problems and hospitalization can cause
  - 3. How well your pain was controlled
  - 4. Degree to which hospital staff addressed your emotional/spiritual needs
  - 5. Response to concern/complaints made during your stay
  - 6. Staff effort to include you in decisions about your treatment
- J. Overall Assessment
  - 1. Overall cheerfulness of the hospital
  - 2. How well staff worked together to care for you
  - 3. Likelihood of your recommending this hospital to others
  - 4. Overall rating of care given at hospital

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## **Inpatient Rehabilitation**

The Inpatient Rehabilitation Survey contains 82 items. Of these, 72 questions are arranged into 13 subscales. The 13 subscales are: Admissions, Room, Diet and Meals, Nursing Care, Physical Therapy, Occupational Therapy, Recreation Therapy, Speech Therapy, Other Services, Visitors and Family, Your Rehabilitation Doctor, Social Work Services and Discharge and Overall Assessment. The remaining 10 questions are background questions.

### **Background**

1. Room Number
  2. Number of days in hospital
  3. Patient's first stay here (y/n)
  4. Were you placed on a special or restricted diet during most of your stay? (y/n)
  5. Did you have a roommate? (y/n)
  6. How long have you been receiving rehabilitation services?
  7. What is your race?
  8. What is the highest grade or level of education that you have completed?
  9. Did someone help you complete this survey? (y/n)
  10. If so, how did that person help you?
    - a. Read the questions to me
    - b. Wrote down the answers I gave
    - c. Answered the questions for me
    - d. Translated the questions into my language (If so, what language: \_\_\_\_\_)
- A. Admissions
1. Speed of the admissions process
  2. Courtesy of the admissions personnel
- B. Room
1. Cheerfulness of your room
  2. Daily cleaning of your room
  3. Room temperature
  4. Noise level in and around room
  5. How well things worked (TV, call button, lights, bed, etc.)
  6. Courtesy of housekeeping personnel
- C. Diet and Meals
1. Explanations you were given about your diet (if on a special diet)
  2. Temperature of the food (cold foods cold, hot food hot)
  3. Quality of the food
  4. Variety of the menu
  5. Likelihood of getting the food you checked off the menu
- D. Nursing Care
1. Courtesy of the nurses
  2. Promptness in responding to call button
  3. Nurses' attitude toward your calling them
  4. Amount of attention paid to your special or personal needs
  5. Degree to which you participated in setting your personal care goals (daily hygiene, bladder and bowel routine)
  6. Nurses' sensitivity and responsiveness to pain you may have experienced in the hospital
  7. How well the nurses instructed you about caring for yourself at home (including medication)
  8. Evaluate overall nursing care you received on the following shifts
    - a. Day shift (7:00am – 3:00pm)
    - b. Evening shift (3:00pm – 11:00pm)
    - c. Night shift (11:00pm – 7:00am)

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- E. Physical Therapy
  - 1. Courtesy of physical therapist
  - 2. Degree to which you were able to participate in setting your physical therapy goals
  - 3. How well the physical therapist explained your treatment and progress
  - 4. Adequacy of your physical therapy program
- F. Occupational Therapy
  - 1. Courtesy of occupational therapist
  - 2. Degree to which you were able to participate in setting your occupational therapy goals
  - 3. How well the occupational therapist explained your treatment and progress
  - 4. Adequacy of your occupational therapy program
- G. Recreation Therapy
  - 1. Courtesy and responsiveness of the recreation therapist to your special needs, concerns or interests
  - 2. Availability of recreational activities (crafts, games, entertainment)
  - 3. Helpfulness of the instructions/information given about your post-discharge recreational activities
- H. Speech Therapy
  - 1. Courtesy of speech therapist
  - 2. Degree to which you were able to participate in setting your speech therapy goals
  - 3. How well the speech therapist explained your speech, language or swallowing problem and treatment
  - 4. Adequacy of your speech therapy program
- I. Other Services
  - 1. Courtesy of the staff who escorted you to and from your room
  - 2. Courtesy of the laboratory personnel
  - 3. Courtesy of the respiratory therapy
  - 4. Courtesy of the Prosthetics/Orthotics Service (limbs, braces, etc.)
  - 5. Patient and Family Education programs
- J. Visitors and Family
  - 1. Courtesy of the people at the information desk
  - 2. Adequacy of visiting hours
  - 3. Accommodations and comfort for visitors (lounge, restrooms, etc.)
  - 4. Staff attitudes toward your visitors
  - 5. Information given to your family about your condition and treatment per your request
- K. Your Rehabilitation Doctor
  - 1. Courtesy of your doctor
  - 2. How well the doctor explained your hospital rehabilitation program
  - 3. Doctor's concern for your questions and worries
  - 4. How well the doctor kept you informed about your treatment and progress
  - 5. Doctor's sensitivity and responsiveness to pain you may have experienced in the hospital
  - 6. How informative the doctor was in dealing with your family
  - 7. How well the doctor discussed your discharge plans and post-discharge care
- L. Social Work Services and Discharge
  - 1. Courtesy of the social worker
  - 2. How responsive the social worker was to your personal and family's needs
  - 3. Helpfulness of the social worker in assisting with your discharge plans and post-hospital arrangements
  - 4. Amount of notice you were given to prepare for your discharge
  - 5. Adequacy of equipment recommended for home use
  - 6. Training given to you and your family about your care at home
  - 7. Patient Discharge Information packet

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**M. Final Ratings**

1. When you first arrived how well the staff explained what your stay here would be like
2. Overall cheerfulness of the hospital
3. Overall cleanliness of the hospital
4. Staff sensitivity to the inconvenience that health problems and hospitalization can cause
5. Degree to which the staff had a positive attitude and gave you encouragement
6. Staff concern not to push you too hard or expect too much progress too soon
7. Degree to which your care and treatment seemed well-coordinated
8. Staff concern for your privacy
9. Adequacy of your hospital rehabilitation program to help you meet your goals
10. Likelihood of your recommending this hospital to others

**Inpatient Psychiatric**

The survey consists of 58 questions. Of these, 51 questions are grouped into 10 domains: Admissions, Your Room/Accommodations, Diet and Meals, Treatment Staff, Medical Procedures, Therapeutic Programs, Your Primary Psychiatrist, Visitors and Family, Discharge and Overall Assessment. The other 7 questions are background questions.

**Background**

1. Who completed this survey
  2. Number of days in hospital
  3. Date of admission
  4. Date of discharge
  5. Sex of patient
  6. Age
  7. Is this your first admission to this hospital
- A. Admissions**
1. Speed of admissions process
  2. Courtesy of the admissions personnel
  3. Information provided about Patients Rights including confidentiality
- B. Your Room/Accommodations**
1. Cheerfulness of your room
  2. Daily cleaning of your room
  3. Noise level in and around room
  4. Room temperature
  5. Courtesy of housekeeping staff
- C. Diet and Meals**
1. If you were placed on a special or restricted diet, how well was it explained
  2. Temperature of the food (cold foods cold, hot foods hot)
  3. Quality of the food
  4. Courtesy of food service staff
  5. Cleanliness of the dining area

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- D. Treatment Staff
  - 1. Friendliness of the treatment staff
  - 2. How well treatment staff introduced you to your unit and program
  - 3. Promptness in responding to your requests
  - 4. Degree to which treatment staff took your health problems seriously
  - 5. Degree to which treatment staff kept you adequately informed regarding your treatment program
  - 6. Technical skill of the nurses (medical procedures and/or medication administration)
- E. Medical Procedures
  - 1. How well was your blood taken (quickly, little pain, etc.)
  - 2. Courtesy of the person who took your blood
  - 3. Adequacy of explanation of tests
- F. Therapeutic Programs
  - 1. Individual contact with staff
  - 2. Group therapy sessions
  - 3. Social/recreational therapy activities
  - 4. Family meetings
- G. Your Primary Psychiatrist
  - 1. Amount of time your psychiatrist spent with you
  - 2. Concern and sensitivity shown for your questions and worries
  - 3. The degree to which you were involved in your treatment plan
  - 4. How well you were kept informed about your treatment
  - 5. How well you were informed regarding medication prescribed
  - 6. Courtesy of the psychiatrist
- H. Visitors and Family
  - 1. Courtesy of people at the front lobby reception desk
  - 2. Accommodations and comfort provided for visitors
  - 3. Staff courtesy towards your visitors
  - 4. Adequacy of visiting hours
  - 5. Confidentiality respected with regard to family and friends
  - 6. Visitors' rating of the hospital cafeteria/dining room
  - 7. Availability of space to meet privately with family and friends
- I. Discharge
  - 1. Hospital's concern not to discharge you too soon
  - 2. Information provided at discharge regarding your medication
  - 3. Information regarding directions for care at home when discharged
  - 4. Instructions on what to do if experiencing problems related to your hospitalized medical condition (when to seek help, who to call, etc.)
  - 5. Courtesy and assistance you received from patient financial services
  - 6. Helpfulness from patient financial services in understanding your bill and arranging for payment
- J. Overall Assessment
  - 1. Overall cheerfulness of the hospital
  - 2. Overall cleanliness of the hospital
  - 3. Staff concern for your privacy
  - 4. Staff sensitivity to the inconvenience that health problems and hospitalization can cause
  - 5. Degree to which you feel that your condition has improved as a result of the services received from the hospital's program
  - 6. Likelihood of your recommending this hospital to others

## Methodology

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### **Materials Used**

**Inpatient and Inpatient Rehabilitation.** Inpatient and inpatient rehabilitation hospitals uploaded patient names and mailing information along with several patient demographic variables (e.g., gender, age, primary insurance) to Press Ganey. The appropriate survey (Inpatient or Inpatient Rehabilitation) customized with the hospital's logo, a cover letter printed on hospital letterhead, and a business reply envelope addressed to Press Ganey were mailed to patients. On each of the mailing pieces a barcode is printed which is used to link all pieces together for that particular patient. Pitney Bowes intelligent inserters, using moving beam scanners, scan each mail piece throughout the print preparation process and continuously read the barcode of all pieces ensuring that no mismatches occur (i.e., the correct cover letter and survey are placed in the correct envelope and mailed to the correct patient). Spanish versions of the cover letter and surveys were prepared. Hospitals uploaded a code in the patient record to identify the patient's primary language which then determined whether the patient was mailed a Spanish or English survey. As a safe-guard, instructions and a telephone number appeared on the cover letter directing the patient what to do if they received a survey in English but preferred Spanish (or vice versa).

**Inpatient Psychiatric.** The materials used for the psychiatric facility's data collection differ slightly from those used in the inpatient and inpatient rehabilitation data collection. Names and addresses of psychiatric patients were not uploaded to Press Ganey for mailing. Instead, the surveys were bulk-printed and distributed to each eligible patient at discharge (rather than mailing) to protect patient confidentiality once they left the hospital. In a blank business envelope the patient received a psychiatric survey, a cover letter on hospital letterhead, and a business reply envelope. There was a locked box at the exit door of the unit into which patients could place completed surveys. Alternatively, at the patient's discretion, the survey could be completed off-site and mailed in the return envelope.

### **Sampling and Data Collection Process**

**Inpatient.** The sampling and data collection process was conducted from discharge date December 9, 2002 through March 9, 2003. Surveys received by March 31, 2003 were used for the analysis. An exception to this time frame was made for Memorial Hospital's OB patients. Due to low numbers of returned surveys for those patients, the data

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collection cut-off date was extended. The analyses for Memorial Hospital thus included surveys from OB patients discharged after December 9, 2003 and which were returned by April 30, 2003.

Generally, hospitals mailed surveys to 100% of their eligible discharges. An exception to this procedure, however, was that Women and Infants Hospital sampled their OB patients at 14% due to the high volume of patients in this category at that facility.

Medical, Surgical, or OB patients that were 18 years old or older and spent the night in the hospital were eligible to receive a survey. Patients were excluded from the sample if they were deceased or had received an inpatient survey in the previous 3 months.

**Inpatient Rehabilitation.** The sampling and data collection process was conducted from discharge date April 15, 2003 through July 15, 2003. Surveys received between May 1, 2003 and July 31, 2003 were used for the analysis. The inpatient rehabilitation facility sampled 100% of eligible patients. Eligible patients included patients who were 18 years old or older and spent the night in the hospital. Patients were excluded from the sample if they had received an inpatient rehabilitation survey in the previous 3 months.

**Inpatient Psychiatric.** The sampling and data collection process was conducted from discharge date April 15, 2003 through July 15, 2003. Surveys received between May 1, 2003 and July 31, 2003 were used for the analysis. Psychiatric patients who met the selection criteria were handed a survey prior to their discharge, according to a pre-determined protocol. This protocol included distributing the psychiatric survey by a neutral party to all eligible patients on the day of discharge along with a cover letter and a business reply envelope. The patient was given the option to either complete the survey in the hospital and return it to a locked drop-off box, or complete the questionnaire at a personal residence and mail it in the business reply envelope. Eligible patients included patients who were 18 years old or older and spent the night in the hospital.

## **Data Quality Assessment**

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### **Response Rates**

In survey research overall response rate is a rough estimate of the representativeness of the sample of respondents.

In general, the higher the response rate the lower the chance of response bias. Babbie (1989) has been quoted as stating: "...a 50% response rate is adequate for analysis and reporting. A response rate of at least 60% is good. And a response rate of 70% is very good. This, however, is a rough guideline; it has no statistical basis, and a demonstrated lack of response bias is far more important than a high response rate (Babbie 1989)."

Response rate is defined as: The number of surveys completed by patients divided by the number of surveys mailed to patients, minus the number of surveys returned from the post office as undeliverable. Response rate is typically expressed in the form of a percentage.

### **Overall Response Rates**

Statewide, approximately 30.9% of patients receiving surveys returned them. The mean hospital response rate was 31.4%. The highest overall response rate achieved by an individual hospital was 39.3%, the lowest overall response rate was 23.8%. Overall, response rates varied by the type of service received by the patient.

#### **Medical/Surgical Patients**

The mean response rate for medical/surgical patients was 31.7%. The highest response rate achieved by an individual hospital was 41.4%, the lowest 23.8%.

#### **Obstetrical Patients**

The mean response rate for the seven individual hospitals that serve obstetrical patients was 31.4%. The highest response rate achieved by an individual hospital was 39.7%, the lowest 13.7%.

#### **Rehabilitation Patients**

The response rate for the rehabilitation hospital was 39.5%.

#### **Psychiatric Patients**

The response rate for the psychiatric hospital was 22.4%.



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**Table 1: Summary Table of Response Rates**

	<b>Sample Size</b>	<b>Surveys Completed</b>	<b>Undeliverable Surveys</b>	<b>Response Rate</b>
<b>General Hospitals Aggregate</b>	<b>16,686</b>	<b>5052</b>	<b>353</b>	<b>30.9%</b>
<b>Medical/Surgical Aggregate</b>	<b>15,413</b>	<b>4668</b>	<b>329</b>	<b>30.9%</b>
<b>Obstetrical Aggregate</b>	<b>1273</b>	<b>384</b>	<b>24</b>	<b>30.7%</b>
<b>Kent County Memorial Hospital</b>				
All Patients	2443	749	44	31.2%
Medical/Surgical	2181	661	43	30.9%
Obstetrical	262	88	1	33.7%
<b>Landmark Medical Center</b>				
All Patients	795	243	18	31.3%
Medical/Surgical	658	210	11	32.5%
Obstetrical	137	33	7	25.4%
<b>Memorial Hospital of Rhode Island</b>				
All Patients	1571	367	32	23.8%
Medical/Surgical	1348	337	28	25.5%
Obstetrical	223	30	4	13.7%
<b>The Miriam Hospital</b>				
All Patients	1998	705	33	35.9%
Medical/Surgical	1998	705	33	35.9%
<b>Newport Hospital</b>				
All Patients	652	207	9	32.2%
Medical/Surgical	530	159	8	30.5%
Obstetrical	122	48	1	39.7%
<b>Our Lady of Fatima Hospital</b>				
All Patients	1565	501	24	32.5%
Medical/Surgical	1565	501	24	32.5%
<b>Rhode Island Hospital</b>				
All Patients	3766	1081	116	29.6%
Medical/Surgical	3766	1081	116	29.6%
<b>Roger Williams Medical Center</b>				
All Patients	1348	312	39	23.8%
Medical/Surgical	1348	312	39	23.8%
<b>South County Hospital</b>				
All Patients	741	259	16	35.7%
Medical/Surgical	652	227	13	35.5%
Obstetrical	89	32	3	37.2%
<b>The Westerly Hospital</b>				
All Patients	863	263	7	30.7%
Medical/Surgical	767	230	6	30.2%
Obstetrical	96	33	1	34.7%
<b>Women &amp; Infants Hospital</b>				
All Patients	944	365	15	39.3%
Medical/Surgical	600	245	8	41.4%
Obstetrical	344	120	7	35.6%

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Specialty Hospitals				
<b>Rehabilitation Hospital of Rhode Island</b>				
All Patients	119	47	0	39.5%
<b>Butler Hospital</b>				
All Patients	902	202	0	22.4%

## **Key Demographics**

Differences in response rates between certain population groups can result in some groups being over-represented or under-represented in the total sample thus potentially biasing the results. Response bias is a concern when: 1) the scores differ by type of patient and 2) the under-represented groups comprise a sizeable proportion of the entire patient base.

To evaluate response bias using the data in the study, Press Ganey examined key demographic variables to identify any differences between the following groups of patients: total eligible patient population, the sample of patients selected to be sent a survey, the respondents and the non-respondents. The key variables were: age, gender, length of stay, insurance type, race and patient type. Press Ganey examined the data at the aggregate level as well as at the individual hospital level.

In the study, the following response patterns were found:

- Patients between the ages 50-79 years were more likely to respond than the other age groups.
- Males and females were approximately equal in their likelihood to respond.
- White patients were more likely to respond than those of other racial groups.
- Patients with length of stays under five days were more likely to respond than patients with longer stays.
- Patients with Blue Cross or Managed Medicare insurance coverage were more likely to respond than patients with other types of health insurance.
- Medical/surgical and OB patients were approximately equal in their likelihood to respond.

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**Table 2: Comparison Table of Sample, Respondents and Non-Respondents for Inpatient Key Demographics**

<b>Key Demographics</b>	<b>Sample Size</b>	<b>Respondents</b>	<b>Non Respondents</b>
<b>Age</b>			
18-34 years old	13.5%	9.7%	15.1%
35-49 years old	18.0%	16.6%	18.4%
50-64 years old	20.7%	23.0%	19.8%
65-79 years old	26.7%	31.7%	24.7%
Over 80 years old	21.1%	18.9%	22.0%
<b>Gender</b>			
Male	40.9%	40.9%	40.6%
Female	59.1%	59.1%	59.4%
<b>Race</b>			
American Indian	0.1%	0.1%	0.1%
Asian	0.6%	0.3%	0.7%
Black	3.1%	1.3%	3.9%
Hispanic	2.8%	1.4%	3.3%
Other	1.4%	0.7%	1.6%
Unknown	2.5%	3.2%	2.2%
White	73.8%	76.6%	72.9%
<b>Length of Stay</b>			
Under 5 Days	69.0%	71.5%	68.2%
5 - 7 Days	17.1%	16.7%	17.1%
Over 7 Days	13.9%	11.8%	14.7%
<b>Insurance Type</b>			
Blue Cross	19.3%	24.9%	17.2%
CHAMPUS	0.6%	0.7%	0.6%
Commercial	4.8%	5.0%	4.8%
HMO	10.0%	10.8%	9.6%
Managed Medicaid	5.5%	3.5%	12.3%
Managed Medicare	13.7%	16.8%	6.4%
Medicaid	3.9%	1.6%	4.8%
Medicare	23.8%	21.3%	25.0%
Other Government	1.5%	1.3%	1.6%
Self-Pay	5.0%	2.7%	5.7%
Workers Comp	0.6%	0.6%	0.7%
<b>Patient Type</b>			
Medical/Surgical	92.4%	92.4%	92.3%
Obstetrical	7.6%	7.6%	7.7%

Given that certain groups were more likely to respond, follow-up tests were conducted to see if there were patterns of differences in mean scores between the groups who were more/less likely to respond. No differences in mean scores were found between patients with the various types of insurance that were more/less likely to respond. Similarly, no differences in mean scores were found between racial/ethnic groups that were more/less likely to

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respond. Differences in mean score were found between the age groups that were more/less likely to respond.

Additionally, differences in mean score were found between the “length of stay” groups that were more/less likely to respond. In each case the groups that were more likely to respond had higher mean scores than the groups less likely to respond. Thus, results may be biased toward slightly inflated scores.

## **Error Estimates**

The estimated standard error of a statistic is a measure of the variation due to sampling and can be used to examine the precision obtained in a particular sample. By mere chance alone, some difference between a sample and the population from which it is drawn must always be expected to exist.

By definition, standard error is the standard deviation of the sampling distribution. In this study the error estimate for each hospital was calculated by dividing the standard deviation of the hospital specific sample by the square root of the hospital sample size. The calculation of the error estimate utilized each hospital’s own standard deviation.

The standard error associated with each domain of care was examined by patient type for each hospital. The potential for sampling bias between the sample and its population can be represented through the use of confidence intervals.

## **Corrected Confidence Intervals**

Confidence intervals are analogous to the “margin of error” that is often mentioned in public opinion surveys. The confidence interval provides a range in which a true score would be likely to fall if it were possible to obtain a survey response from all patients. Confidence intervals for individual hospitals will vary in width depending on (1) the numbers of responses they received to the survey, and (2) the variation in the respondents’ answers to specific questions in each of the domains of care. Typically, the larger the sample size, the smaller the expected confidence interval would be. Confidence intervals were calculated at 95% for each for each domain of care for each hospital by patient type.

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The confidence intervals were then “corrected.” Corrected confidence intervals take into consideration what proportion of the population the sample represents. Generally speaking, sample sizes that represent under 20% of the total population do not require ‘correcting’. That is, the correction factor would have no effect on the calculated confidence interval. However, when the sample size represents a larger proportion of the population correction is warranted and effective. For example, a facility surveying 80% of its population is likely capturing a more accurate estimate of the true population than a facility sampling only 20% of its population. Thus, the confidence interval can be narrowed to take into consideration the greater precision in estimation associated with sampling large proportions of the population. This is done by computing a “correction factor” by which the standard error of the mean is multiplied. Because all but one of the of hospitals participating in the 2003 *Report of Patient Satisfaction with Hospital Care in Rhode Island* sampled at 100%, and response rates of over 20% were achieved, the application of the correction factor was appropriate.

The table below illustrates the average corrected confidence interval at 95% across all hospitals for each domain of care by patient type.

**Table 3A: Average Corrected Confidence Intervals for Medical/Surgical Services**

<b>Domain</b>	<b>95% Corrected Confidence Interval (+/-)</b>
<b>Admission Section Average</b>	1.79
<b>Room Section Average</b>	1.47
<b>Meals Section Average</b>	1.62
<b>Nurses Section Average</b>	1.55
<b>Tests and Treatments Section Average</b>	1.41
<b>Visitors and Family Section Average</b>	1.57
<b>Physician Section Average</b>	1.55
<b>Discharge Section Average</b>	1.57
<b>Personal Issues Section Average</b>	1.59
<b>Overall Assessment Section Average</b>	1.63
<b>Overall Mean Score</b>	1.19

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**Table 3B: Average Corrected Confidence Intervals for Obstetrical Services**

<b>Domain</b>	<b>95% Corrected Confidence Interval (+/-)</b>
<b>Admission Section Average</b>	3.55
<b>Room Section Average</b>	3.44
<b>Meals Section Average</b>	3.89
<b>Nurses Section Average</b>	3.11
<b>Tests and Treatments Section Average</b>	3.53
<b>Visitors and Family Section Average</b>	3.85
<b>Physician Section Average</b>	2.96
<b>Discharge Section Average</b>	3.98
<b>Personal Issues Section Average</b>	3.25
<b>Overall Assessment Section Average</b>	2.67
<b>Overall Mean Score</b>	2.47

**Table 3C: Corrected Confidence Intervals for Rehabilitation Services**

<b>Domain</b>	<b>95% Corrected Confidence Interval (+/-)</b>
<b>Admissions Section</b>	2.7
<b>Room Section</b>	3.5
<b>Diet and Meals Section</b>	3.3
<b>Nursing Care Section</b>	4.1
<b>Physical Therapy Section</b>	3.5
<b>Occupational Therapy Section</b>	2.2
<b>Recreation Therapy Section</b>	6.5
<b>Speech Therapy Section</b>	19.5
<b>Other Services Section</b>	3.2
<b>Visitors and Family Section</b>	3.9
<b>Your Attending Physician at RHRI Section</b>	5.3
<b>Case Management, Social Work Services and Discharge Section</b>	3.1
<b>Final Ratings Section</b>	3.5
<b>Overall Mean Score</b>	2.7

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**Table 3D: Corrected Confidence Intervals for Psychiatric Services**

<b>Domain</b>	<b>95% Corrected Confidence Interval (+/-)</b>
<b>Admissions Section</b>	2.4
<b>Your Room/Accommodations Section</b>	2.1
<b>Diet and Meals Section</b>	2.3
<b>Treatment Staff Section</b>	2.3
<b>Medical Procedures Section</b>	2.1
<b>Therapeutic Programs Section</b>	2.5
<b>Your Primary Psychiatrist Section</b>	2.7
<b>Visitors and Family Section</b>	2.9
<b>Discharge Section</b>	2.5
<b>Some Final Ratings Section</b>	2.2
<b>Overall Mean Score</b>	1.8

## Hospital Score Calculations

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In order to calculate the scores reported for this project several steps were followed.

### **Step 1: Numeric Conversion of Patient Responses**

For each survey respondents were asked to rate each item on a 1-5 Likert-type scale where 1 = Very poor, 2 = Poor, 3 = Fair, 4 = Good, and 5 = Very Good. A linear transformation was then conducted to place the responses on a 0-100 scale where 0 = Very Poor, 25 = Poor, 50 = Fair, 75 = Good, and 100 = Very Good. These converted scores were then used in all subsequent analyses.

### **Step 2: Subscale Score Calculation**

Using the same converted values for each question, domain scores are first calculated at the patient level. That is, for each patient the converted values for the individual questions in the particular subscale are averaged together creating a patient level subscale score. The patient level subscale scores are averaged together to create the facility level subscale score. This facility level subscale score is displayed in the report as the Subscale Score.

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### **Step 3: Overall Score**

For each patient the subscale scores are averaged to create a patient level overall satisfaction score. The patient level overall satisfaction scores are then aggregated at the facility level to create the facility's Overall Score.

## **Comparative Groups for Hospital Ratings**

**General Information.** All comparative groups used in this study included only patients 18 years old and over.

**Medical/Surgical Comparative Group.** Data were included from 1072 acute care inpatient facilities that had at least 30 patient responses in the Medical/Surgical patient type group during the time period being used for the Rhode Island public report.

**Obstetrics Comparative Group.** Data were included from 394 acute care inpatient facilities that had at least 30 patient responses in the Obstetrical patient type group during the time period being used for the Rhode Island public report.

**Inpatient Rehabilitation Comparative Group.** Data were included from 37 freestanding inpatient rehabilitation facilities that had at least 30 patient responses during the time period being used for the Rhode Island public report. Facilities were included if they had identified themselves as being a freestanding rehabilitation hospital, as opposed to being, a rehabilitation unit that was part of a general acute care hospital.

**Inpatient Mental Health Comparative Group.** Data were included from 30 freestanding inpatient psychiatric facilities that had at least 30 patient responses during the time period being used for the Rhode Island public report. Facilities were included if they had identified themselves as being a freestanding psychiatric hospital, as opposed to being, a psychiatric unit that was part of a general acute care hospital.



## Hospital Scores Converted to Diamond Ratings

### **Inclusion Criteria**

Hospitals rated in the public report had a minimum of 30 completed surveys for each service type. Types of service include: Medical/Surgical Service, Obstetrical Service, Rehabilitation Hospital and Psychiatric Hospital. Data were screened for data entry errors and to make sure only eligible patients were included.

### **Hospital Performance Category Determination**

**Initial Pilot 2000: Symbol Definition Selection.** After review of over 40 public health reports and consultation with public reporting experts, the symbol selected to represent differentiation between hospitals was the diamond. In addition to being an easy symbol to understand and decipher, the diamond is not readily associated with other rating symbols (e.g., movies, consumer reports, restaurants, etc.).

**Performance Rating Levels.** The most common performance rating systems among the public reports reviewed used either three or five levels of differentiation. Based on the distribution of scores from the 2000 pilot project, a three level differentiation was selected to adequately portray any differences among hospitals.

**Performance Rating Determination.** There are two basic assumptions that must be considered when working with patient satisfaction data:

- 1) Patient satisfaction survey science has neither defined nor established quantifiable cutoffs for stratifying performance. The exact point at which average performance becomes above average or below average is unknown.
- 2) Patient satisfaction research involves measurement of patient perceptions and is not an exact science.

Performance rating assignments were determined by how each hospital's score compared to a national average score for each specific subscale. The cornerstone of this process was an *a priori* decision.

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Although an *a priori* decision had been reached, this decision was augmented after the project data had been collected.

**Original Performance Rating Decision.** The original performance rating decision was agreed upon prior to the results of the public report 2001 being available. The goal was to identify practical differences from a national average by using the hospital scores (point estimate). Standard deviation flags were decided to be the most appropriate differentiation. This decision was based on three facts: 1) the distribution of the Rhode Island pilot study results mirrored a normal bell-shaped curve; 2) one standard deviation away from a national average score is generally accepted as a practical difference; and 3) hospitals that use the Press Ganey survey for measuring performance in their organization tend to use the standard deviations as a means to flag both strengths and opportunities.

Three diamond symbols (◆◆◆) indicated that the hospital's score was above average, that is, a standard deviation or more above a national average score. Three diamonds, therefore, would denote that the hospital was scoring approximately in the top 16% of the database. Two diamond symbols (◆◆) indicated that the hospital's score was neither above nor below a national average score by a standard deviation which translated into approximately the middle 68% of the database. One diamond (◆) indicated the hospital's score was below average, that is, a standard deviation or more below a national average score which translated into approximately the bottom 16% of the database.

**Decision to Change the Original Performance Rating Decision.** The standard deviation approach categorized actual results into three distinct groups based on where a hospital's score fell within the distribution of all scores in the database. However, the standard deviation approach alone, lacks the ability to identify with statistical confidence that a score is above or below a national average score. Therefore, the decision was made to enhance the standard deviation approach by applying confidence intervals.

The confidence interval indicates the likelihood that the difference between the hospital's score and the national average score was real and could not simply be accounted for due to sampling error. The confidence interval plays

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an important role in determining if a hospital's score was higher or lower than a national average score. Because the survey reflects responses from a sample of each hospital's patients, it is more statistically complete to identify the hospital's score as falling within the range bordered by the 95% confidence interval, as well as providing the point estimate from the sample data. If the 95% confidence interval around the hospital's score lies entirely above a national average score there is a high degree of certainty (95%) that the population data for the hospital patients, not just a sample, would produce a score above a national average score. When a hospital's confidence interval overlaps a national average score it means that the hospital's performance may not be statistically different from a national average score. The application of the confidence intervals improves the original approach of "practical difference" by the introduction of "significant difference."

**Augmented Performance Rating System.** The augmented approach to the performance rating system described above involved two steps.

1. **Step 1:** Hospitals that had scores above or below a national average score by one standard deviation or more were identified.
  - a. If a hospital score was not above or below the national average score by one standard deviation or more, the hospital was then assigned the two diamond symbol (♦♦).
  - b. If a hospital score was above or below the national average score by one standard deviation or more, it then proceeds to **Step 2**.
2. **Step 2:** For the scores that were one standard deviation or more above or below the national average score, the hospital's 95% corrected confidence interval for that particular domain was then applied.
  - a. If the hospital's score was above the national average score by one standard deviation or more AND the corrected confidence interval did not overlap the national average score, the hospital was assigned the three diamond symbol (♦♦♦).
  - b. If the hospital's score was below the mean score in the national average score by one standard deviation or more AND the corrected confidence interval did not overlap with the national average score, the hospital was assigned the one diamond symbol (♦).

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- c. If the confidence interval overlapped with the national average score, then the hospital was assigned two diamonds (♦♦).

**Assumptions around the national average score.** The national average score used in this study was an appropriate national norm to use for comparison with scores for Rhode Island hospitals. Scores for medical/surgical patients in Rhode Island were compared to national norms for hospital units that are designated as medical, surgical or combined medical/surgical in nature. Similarly, obstetrical patients in Rhode Island were compared to a national norm for hospitals that have dedicated obstetrical units. Rehabilitation and psychiatric patients in Rhode Island were compared to scores for specialty hospitals that had self-identified as being free-standing specialty hospitals rather than, units within general hospitals serving either rehabilitation or psychiatric patients respectively. The national comparison groups used in this study are assumed to be representative of the total patient population; therefore, the national average score was used as an absolute score.

Knowing this, one standard deviation in either direction from the national average score is an appropriate test for practical significance when applied to hospitals in Rhode Island. Comparison of each hospital's score at the 95% confidence interval with a national average score is an appropriate way of determining if the hospital's score is statistically different from the score denoting the national average. More importantly, **it is the intent of this project to compare hospital scores to a national average score and not to each other. It is not appropriate to use the data in this report to compare hospitals to each other.**

**Description of the Press Ganey Pilot Project.** Because this project was utilizing different survey instruments than used in the previous public report, all hospitals participated in a pilot project that was conducted during the following times:

**Inpatient Hospitals:** April-June 2002

**Inpatient Rehabilitation:** September-November 2002

**Inpatient Psychiatric:** September-November 2002

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The purpose of the pilot project was two-fold: 1) to pilot the sample and data collection methodology and identify potential improvements in the process, and 2) to provide baseline information from which decisions regarding the format of the public report could be made. The results of the pilot test were confidential and released only to the participating hospitals. However, Press Ganey shared specific information regarding data quality, error estimates and confidence intervals so that educated decisions could be made for the public report. As a result, final decisions regarding the public report were recommended and approved by all levels *a priori*.

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## Contact Information

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### To learn about hospitals in Rhode Island

If you would like to learn more about any of the hospitals in this report go to **pages 2-3** of this report to see a listing of the hospitals. You can find the name of the hospital, where it is located, the phone number and web site address. Use this information to contact any of the hospitals. Also, you may contact the Hospital Association of Rhode Island at 401-274-4274 or visit the web site: [www.hari.org](http://www.hari.org).

### To learn about this report

This report is available to everyone in Rhode Island. If you or someone you know would like a copy of this report, call the Rhode Island Department of Health at 401-222-2550 and ask for the report on the hospital patient satisfaction survey. Also, you can find this report on the Department of Health web site:

[www.health.ri.gov/chic/performance/series.htm](http://www.health.ri.gov/chic/performance/series.htm).

Here are some ways to get additional information or help in better understanding the 2003 *Report of Patient Satisfaction with Hospital Care in Rhode Island*:

For...	Contact...
Information or questions about the contents of the Public Report	<ul style="list-style-type: none"><li>Hospital Association of Rhode Island at 401-274-4274, or visit the web site at <a href="http://www.hari.org">www.hari.org</a></li></ul>
A copy of the Public Report in Spanish	<ul style="list-style-type: none"><li>Department of Health at 401-222-2550, or view it on the web site at <a href="http://www.health.ri.gov/chic/performance/series.htm">www.health.ri.gov/chic/performance/series.htm</a></li></ul>
A copy of this Technical Report with details about the survey process and ratings	<ul style="list-style-type: none"><li>Department of Health at 401-222-2550, or view it on the web site at <a href="http://www.health.ri.gov/chic/performance/series.htm">www.health.ri.gov/chic/performance/series.htm</a></li></ul>
Help in reading or understanding the Public Report	<ul style="list-style-type: none"><li>Aging 2000 at 401-521-7930</li><li>Urban League of Rhode Island at 401-351-5000, ext. 147</li></ul>
Language translation help	<ul style="list-style-type: none"><li>International Institute of Rhode Island at 401-461-5940</li><li>Office of Minority Health at 401-222-2901</li></ul>
Information about the 1998 law on public reporting for health care facilities	<ul style="list-style-type: none"><li>Department of Health at 401-222-2550</li><li>Rhode Island State Government at: <a href="http://www.rilin.state.ri.us/Statutes/Title23/23-17.17/Index.htm">www.rilin.state.ri.us/Statutes/Title23/23-17.17/Index.htm</a></li></ul>

## APPENDIX A

**Table 1: Acute Care Facility Level Medical/Surgical Data**

Admission Section					
	Sample Size	Number of Responses	Mean Score	Standard Deviation	Corrected 95% Conf. Interval
Kent County Memorial Hospital	2181	629	79.0	21.2	1.4
Landmark Medical Center	658	203	77.9	21.8	2.5
Memorial Hospital of Rhode Island	1348	323	79.4	23.0	2.2
The Miriam Hospital	1998	671	84.2	17.8	1.1
Newport Hospital	530	148	83.9	17.5	2.4
Our Lady of Fatima	1565	484	76.6	21.9	1.6
Rhode Island Hospital	3766	1007	78.7	22.1	1.2
Roger Williams Medical Center	1348	298	81.0	19.2	1.9
South County Hospital	652	216	83.0	18.4	2.0
The Westerly Hospital	767	225	86.0	17.8	2.0
Women & Infants Hospital	600	236	85.0	16.8	1.7

Room Section					
	Sample Size	Number of Responses	Mean Score	Standard Deviation	Corrected 95% Conf. Interval
Kent County Memorial Hospital	2181	644	76.5	16.5	1.1
Landmark Medical Center	658	208	72.0	19.1	2.1
Memorial Hospital of Rhode Island	1348	334	81.2	15.8	1.5
The Miriam Hospital	1998	694	79.3	15.4	0.9
Newport Hospital	530	159	76.8	16.1	2.1
Our Lady of Fatima	1565	493	76.3	17.9	1.3
Rhode Island Hospital	3766	1059	77.9	16.4	0.8
Roger Williams Medical Center	1348	305	79.3	16.7	1.6
South County Hospital	652	223	73.4	17.0	1.8
The Westerly Hospital	767	228	79.3	15.1	1.6
Women & Infants Hospital	600	245	85.9	13.0	1.3

## APPENDIX A

Table 1: (continued)

Meals Section					
	Sample Size	Number of Responses	Mean Score	Standard Deviation	Corrected 95% Conf. Interval
Kent County Memorial Hospital	2181	633	77.1	17.7	1.1
Landmark Medical Center	658	207	75.0	18.6	2.1
Memorial Hospital of Rhode Island	1348	325	82.8	15.8	1.5
The Miriam Hospital	1998	680	78.4	16.1	1.0
Newport Hospital	530	157	77.0	17.5	2.3
Our Lady of Fatima	1565	476	75.9	17.5	1.3
Rhode Island Hospital	3766	1030	73.7	19.4	1.0
Roger Williams Medical Center	1348	287	76.9	17.7	1.8
South County Hospital	652	215	70.7	21.0	2.3
The Westerly Hospital	767	222	78.5	17.1	1.9
Women & Infants Hospital	600	244	81.2	16.8	1.6

Nurses Section					
	Sample Size	Number of Responses	Mean Score	Standard Deviation	Corrected 95% Conf. Interval
Kent County Memorial Hospital	2181	652	86.0	18.3	1.2
Landmark Medical Center	658	209	85.3	19.3	2.2
Memorial Hospital of Rhode Island	1348	334	88.0	17.4	1.6
The Miriam Hospital	1998	697	90.0	14.7	0.9
Newport Hospital	530	158	86.6	16.7	2.2
Our Lady of Fatima	1565	495	84.1	20.4	1.5
Rhode Island Hospital	3766	1061	85.5	19.2	1.0
Roger Williams Medical Center	1348	309	89.0	15.9	1.6
South County Hospital	652	226	85.4	19.3	2.0
The Westerly Hospital	767	228	89.3	14.6	1.6
Women & Infants Hospital	600	244	90.5	14.6	1.4



## APPENDIX A

Table 1: (continued)

Tests and Treatments Section					
	Sample Size	Number of Responses	Mean Score	Standard Deviation	Corrected 95% Conf. Interval
Kent County Memorial Hospital	2181	645	82.9	15.1	1.0
Landmark Medical Center	658	207	82.3	17.7	2.0
Memorial Hospital of Rhode Island	1348	330	84.3	16.0	1.5
The Miriam Hospital	1998	686	86.5	13.6	0.8
Newport Hospital	530	152	85.7	16.6	2.2
Our Lady of Fatima	1565	492	82.6	17.0	1.2
Rhode Island Hospital	3766	1036	82.1	16.2	0.8
Roger Williams Medical Center	1348	300	85.9	14.8	1.5
South County Hospital	652	221	83.8	16.3	1.7
The Westerly Hospital	767	224	88.1	12.9	1.4
Women & Infants Hospital	600	237	86.7	13.7	1.3

Visitors and Family Section					
	Sample Size	Number of Responses	Mean Score	Standard Deviation	Corrected 95% Conf. Interval
Kent County Memorial Hospital	2181	611	81.2	17.2	1.1
Landmark Medical Center	658	199	81.6	17.2	2.0
Memorial Hospital of Rhode Island	1348	314	84.7	17.4	1.7
The Miriam Hospital	1998	653	86.6	14.5	0.9
Newport Hospital	530	139	83.7	17.9	2.5
Our Lady of Fatima	1565	455	81.1	18.4	1.4
Rhode Island Hospital	3766	978	81.3	18.2	1.0
Roger Williams Medical Center	1348	287	86.0	16.5	1.7
South County Hospital	652	210	81.1	17.5	1.9
The Westerly Hospital	767	210	86.1	15.0	1.7
Women & Infants Hospital	600	231	87.1	15.3	1.5

## APPENDIX A

Table 1: (continued)

Physician Section					
	Sample Size	Number of Responses	Mean Score	Standard Deviation	Corrected 95% Conf. Interval
Kent County Memorial Hospital	2181	639	84.6	19.3	1.3
Landmark Medical Center	658	208	85.3	18.9	2.1
Memorial Hospital of Rhode Island	1348	328	88.0	16.8	1.6
The Miriam Hospital	1998	686	88.6	15.3	0.9
Newport Hospital	530	156	89.4	15.4	2.0
Our Lady of Fatima	1565	476	83.4	20.6	1.5
Rhode Island Hospital	3766	1046	85.0	18.6	1.0
Roger Williams Medical Center	1348	304	88.3	18.0	1.8
South County Hospital	652	225	85.7	18.8	2.0
The Westerly Hospital	767	224	89.9	15.2	1.7
Women & Infants Hospital	600	244	92.7	12.9	1.2

Discharge Section					
	Sample Size	Number of Responses	Mean Score	Standard Deviation	Corrected 95% Conf. Interval
Kent County Memorial Hospital	2181	623	81.7	17.6	1.2
Landmark Medical Center	658	208	83.3	17.5	2.0
Memorial Hospital of Rhode Island	1348	323	82.7	18.6	1.8
The Miriam Hospital	1998	683	84.5	15.7	0.9
Newport Hospital	530	152	85.8	15.7	2.1
Our Lady of Fatima	1565	477	81.7	18.8	1.4
Rhode Island Hospital	3766	1046	80.9	19.1	1.0
Roger Williams Medical Center	1348	301	83.7	18.8	1.9
South County Hospital	652	216	82.9	18.5	2.0
The Westerly Hospital	767	221	87.2	14.1	1.6
Women & Infants Hospital	600	243	86.3	17.0	1.6

## APPENDIX A

Table 1: (continued)

Personal Issues Section					
	Sample Size	Number of Responses	Mean Score	Standard Deviation	Corrected 95% Conf. Interval
Kent County Memorial Hospital	2181	639	81.2	18.1	1.2
Landmark Medical Center	658	203	80.8	19.1	2.2
Memorial Hospital of Rhode Island	1348	325	83.3	17.8	1.7
The Miriam Hospital	1998	686	85.0	15.3	0.9
Newport Hospital	530	154	83.5	16.8	2.2
Our Lady of Fatima	1565	478	81.3	18.3	1.4
Rhode Island Hospital	3766	1033	81.1	18.1	0.9
Roger Williams Medical Center	1348	300	83.2	18.2	1.8
South County Hospital	652	219	81.4	18.4	2.0
The Westerly Hospital	767	221	84.4	17.1	1.9
Women & Infants Hospital	600	244	87.3	14.0	1.4

Overall Assessment Section					
	Sample Size	Number of Responses	Mean Score	Standard Deviation	Corrected 95% Conf. Interval
Kent County Memorial Hospital	2181	646	85.9	18.7	1.2
Landmark Medical Center	658	208	82.9	21.8	2.4
Memorial Hospital of Rhode Island	1348	333	87.2	17.9	1.7
The Miriam Hospital	1998	694	90.9	14.3	0.9
Newport Hospital	530	157	86.9	17.3	2.3
Our Lady of Fatima	1565	491	83.2	21.0	1.5
Rhode Island Hospital	3766	1058	84.4	19.2	1.0
Roger Williams Medical Center	1348	308	87.0	18.5	1.8
South County Hospital	652	227	87.0	19.9	2.1
The Westerly Hospital	767	228	88.0	16.2	1.8
Women & Infants Hospital	600	243	91.5	13.4	1.3

## **APPENDIX A**

**Table 1: (continued)**

<b>Overall Rating</b>					
	<b>Sample Size</b>	<b>Number of Responses</b>	<b>Mean Score</b>	<b>Standard Deviation</b>	<b>Corrected 95% Conf. Interval</b>
Kent County Memorial Hospital	2181	657	81.6	13.7	0.9
Landmark Medical Center	658	210	80.6	14.7	1.6
Memorial Hospital of Rhode Island	1348	335	84.1	13.8	1.3
The Miriam Hospital	1998	701	85.4	11.5	0.7
Newport Hospital	530	159	83.8	12.6	1.6
Our Lady of Fatima	1565	500	80.4	14.9	1.1
Rhode Island Hospital	3766	1075	80.9	14.3	0.7
Roger Williams Medical Center	1348	311	83.7	14.0	1.4
South County Hospital	652	227	81.5	14.7	1.5
The Westerly Hospital	767	229	85.7	11.4	1.2
Women & Infants Hospital	600	245	87.4	10.8	1.0

## APPENDIX A

**Table 2: Acute Care Facility Level Obstetrical Data**

Admission Section					
	Sample Size	Number of Responses	Mean Score	Standard Deviation	Corrected 95% Conf. Interval
Kent County Memorial Hospital	262	84	93.2	13.6	2.4
Landmark Medical Center	137	32	87.5	15.6	4.7
Memorial Hospital of Rhode Island	223	28	87.4	16.2	5.6
Newport Hospital	122	47	94.6	11.2	2.5
South County Hospital	89	31	90.5	12.4	3.5
The Westerly Hospital	96	31	91.0	12.9	3.7
Women & Infants Hospital	344	118	80.0	17.0	2.5

Room Section					
	Sample Size	Number of Responses	Mean Score	Standard Deviation	Corrected 95% Conf. Interval
Kent County Memorial Hospital	262	88	80.4	14.6	2.5
Landmark Medical Center	137	33	77.7	15.9	4.7
Memorial Hospital of Rhode Island	223	30	83.1	14.0	4.7
Newport Hospital	122	48	92.4	10.9	2.4
South County Hospital	89	32	85.4	12.6	3.5
The Westerly Hospital	96	33	83.3	15.4	4.3
Women & Infants Hospital	344	120	78.8	14.0	2.0

Meals Section					
	Sample Size	Number of Responses	Mean Score	Standard Deviation	Corrected 95% Conf. Interval
Kent County Memorial Hospital	262	88	82.0	16.5	2.8
Landmark Medical Center	137	33	72.9	19.0	5.7
Memorial Hospital of Rhode Island	223	30	85.0	13.0	4.3
Newport Hospital	122	48	84.4	16.7	3.7
South County Hospital	89	32	74.6	13.8	3.8
The Westerly Hospital	96	32	80.4	17.4	4.9
Women & Infants Hospital	344	119	83.6	13.9	2.0

## APPENDIX A

**Table 2: (continued)**

Nurses Section					
	Sample Size	Number of Responses	Mean Score	Standard Deviation	Corrected 95% Conf. Interval
Kent County Memorial Hospital	262	83	91.4	17.1	3.0
Landmark Medical Center	137	30	86.4	17.8	5.6
Memorial Hospital of Rhode Island	223	30	93.2	10.0	3.3
Newport Hospital	122	48	95.7	8.5	1.9
South County Hospital	89	32	93.8	9.5	2.6
The Westerly Hospital	96	32	92.6	10.7	3.0
Women & Infants Hospital	344	115	86.3	16.1	2.4

Tests and Treatments Section					
	Sample Size	Number of Responses	Mean Score	Standard Deviation	Corrected 95% Conf. Interval
Kent County Memorial Hospital	262	82	89.8	12.6	2.2
Landmark Medical Center	137	29	84.3	16.9	5.4
Memorial Hospital of Rhode Island	223	30	87.6	13.6	4.5
Newport Hospital	122	46	90.4	15.1	3.4
South County Hospital	89	32	90.0	11.3	3.1
The Westerly Hospital	96	30	86.7	13.3	3.9
Women & Infants Hospital	344	113	84.2	14.8	2.2

Visitors and Family Section					
	Sample Size	Number of Responses	Mean Score	Standard Deviation	Corrected 95% Conf. Interval
Kent County Memorial Hospital	262	87	85.3	19.5	3.3
Landmark Medical Center	137	33	81.9	18.1	5.4
Memorial Hospital of Rhode Island	223	28	87.9	14.8	5.1
Newport Hospital	122	46	91.4	12.3	2.8
South County Hospital	89	32	89.8	15.9	4.4
The Westerly Hospital	96	29	89.7	11.5	3.4
Women & Infants Hospital	344	114	83.4	17.0	2.5

## APPENDIX A

**Table 2: (continued)**

Physician Section					
	Sample Size	Number of Responses	Mean Score	Standard Deviation	Corrected 95% Conf. Interval
Kent County Memorial Hospital	262	85	92.1	11.6	2.0
Landmark Medical Center	137	33	87.0	15.6	4.6
Memorial Hospital of Rhode Island	223	27	92.8	12.7	4.4
Newport Hospital	122	48	90.4	15.5	3.4
South County Hospital	89	32	94.1	9.1	2.5
The Westerly Hospital	96	32	98.0	4.4	1.2
Women & Infants Hospital	344	117	87.2	16.5	2.4

Discharge Section					
	Sample Size	Number of Responses	Mean Score	Standard Deviation	Corrected 95% Conf. Interval
Kent County Memorial Hospital	262	88	87.2	15.6	2.7
Landmark Medical Center	137	33	83.0	19.8	5.9
Memorial Hospital of Rhode Island	223	30	86.9	17.3	5.8
Newport Hospital	122	48	87.9	15.6	3.4
South County Hospital	89	32	90.6	11.6	3.2
The Westerly Hospital	96	33	88.6	15.4	4.3
Women & Infants Hospital	344	120	81.2	18.2	2.6

Personal Issues Section					
	Sample Size	Number of Responses	Mean Score	Standard Deviation	Corrected 95% Conf. Interval
Kent County Memorial Hospital	262	87	88.7	14.3	2.5
Landmark Medical Center	137	33	80.4	16.7	5.0
Memorial Hospital of Rhode Island	223	30	90.4	12.2	4.1
Newport Hospital	122	47	91.7	13.2	2.9
South County Hospital	89	32	93.2	10.1	2.8
The Westerly Hospital	96	33	88.0	11.8	3.3
Women & Infants Hospital	344	117	83.0	15.4	2.3

## APPENDIX A

**Table 2: (continued)**

Overall Assessment Section					
	Sample Size	Number of Responses	Mean Score	Standard Deviation	Corrected 95% Conf. Interval
Kent County Memorial Hospital	262	88	91.8	13.6	2.3
Landmark Medical Center	137	33	83.7	19.1	5.7
Memorial Hospital of Rhode Island	223	30	94.3	9.4	3.1
Newport Hospital	122	48	96.0	7.3	1.6
South County Hospital	89	32	97.1	6.3	1.8
The Westerly Hospital	96	33	96.0	7.3	2.0
Women & Infants Hospital	344	120	89.1	15.1	2.2

Overall Rating					
	Sample Size	Number of Responses	Mean Score	Standard Deviation	Corrected 95% Conf. Interval
Kent County Memorial Hospital	262	88	88.2	10.4	1.8
Landmark Medical Center	137	33	82.4	12.9	3.8
Memorial Hospital of Rhode Island	223	30	88.7	9.6	3.2
Newport Hospital	122	48	91.5	8.9	2.0
South County Hospital	89	32	89.9	8.3	2.3
The Westerly Hospital	96	33	89.6	9.0	2.5
Women & Infants Hospital	344	120	83.6	11.5	1.7